DOCUMENT RESUME

ED 028 271 VT 007 900

Guidelines For The Development of Vocational Education In Texas Through 1975-76.
Texas Education Agency, Austin. Dept. of Vocational Education.
Pub Date Sep 68
Note-49p.
EDRS Price MF-$0.25 HC-$2.55
Descriptors-*Administrative Problems, Economic Factors, Educational Planning, *Educational Problems, Employment Trends, Enrollment Trends, *Financial Problems, *Guidelines, Population Trends, State Programs, *Vocational Education
Identifiers-*Texas

Those public school vocational programs which involve the expenditure of Texas state funds are the focus of this report. Demographic, economic, enrollment, and vocational education expenditure data were collected and are presented. Projections based on these data are made through 1975. In addition, 13 problems and specific action recommendations are presented for consideration by the state legislature and state board of education. (EM)

ED028271

# GUIDELINES

## for the Development of Vocational Education in Texas Through 1975-76

A Report of the
Texas Advisory Committee
on Vocational Education

VT007900

TEXAS EDUCATION AGENCY
SEPTEMBER 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

# GUIDELINES

# FOR THE DEVELOPMENT OF

# VOCATIONAL EDUCATION IN TEXAS

# THROUGH 1975-76

A REPORT

OF THE

TEXAS ADVISORY COMMITTEE ON VOCATIONAL EDUCATION.

TEXAS EDUCATION AGENCY, Austin.

SEPTEMBER 1968

## NOTE 1

This report concerns only those public school vocational education programs which involve the expenditure of State funds. Several special adult programs (Adult Basic Education, Adult Migrant Education, Civil Defense Education, Manpower Development and Training, and Veterans Education) are closely associated with public vocational education in Texas but are not discussed in this report because State funding of these programs is not required.

## NOTE 2

Unless otherwise indicated by a specific source citation, the Figures and Tables included in this report were developed from basic data furnished by the Texas Education Agency.

# PREFACE

Public education in Texas is charged with the task of providing for the extensive and rapidly changing educational needs of a growing population in an expanding industrial economy. The great challenge presented by this task has stimulated a reappraisal of traditional educational planning methods and has led to the development of comprehensive long-range planning on a statewide basis. Educational planning of this range and scope involves analysis and evaluation of past and present trends and conditions as well as prospective changes in the society in which the education system functions. Vocational education, which is now recognized as a vital and integral part of the total public education program, must be based on planning which gives particular attention to anticipated economic and demographic changes and must be realistically structured to facilitate economical adaptation to the changing manpower needs of business and industry.

This report presents an overview of the multiple and diversified factors which can be expected to influence the nature, scope, and cost of vocational, technical, and adult education in the years ahead. It sets forth broad guidelines for action based on past and projected trends in population growth, economic and industrial development, employment opportunities, public school enrollment, enrollment in vocational, technical, and adult vocational education programs, and expenditures for the development, implementation, and continuation of these programs at the secondary and post secondary levels.

CONTENTS


INTRODUCTION ..... 1

DEMOGRAPHIC AND ECONOMIC CONSIDERATIONS ..... 4

- Population Growth ..... 4
- Age and Sex Distribution of Population ..... 4
- Urbanization ..... 6
- Labor Force ..... 6
- Employment and Employment Opportunities ..... 7

SCHOOL ENROLLMENTS AND ENROLLMENTS IN VOCATIONAL EDUCATION ..... 11

- High School Enrollments and High School Graduates ..... 11
- Employment of High School Graduates Who Completed Vocational Education Programs ..... 11
- Employment of Individuals Who Completed Post Secondary Vocational Education Programs ..... 12
- Total Enrollments in Vocational Education ..... 13
- High School Vocational Education Enrollment ..... 14
- Post Secondary Vocational Education Enrollment ..... 15
- Adult Enrollments in Vocational Education ..... 16
- Enrollment of Persons with Special Needs ..... 17
- Projected Total Enrollment in Vocational Education ..... 18
- Enrollments in Major Program Areas of Vocational Education ..... 19

EXPENDITURES FOR VOCATIONAL EDUCATION IN TEXAS ..... 21

- Past Expenditures ..... 21
- Expenditures for Vocational Education Per Enrollee ..... 22
- Estimated Expenditures Necessary to Support Anticipated Enrollments in Vocational Education Through 1975-76 ..... 23
- Federal, State, and Local Contributions to Total Expenditures for Vocational Education ..... 29

SUMMARY ..... 32

RECOMMENDATIONS OF THE ADVISORY COMMITTEE ..... 34

APPENDIX ..... 43

# INTRODUCTION

During the past half century, changes in the way we live and the way we earn our living have caused vocational education to become a major focal point in the total process of public education. The goals and objectives of vocational education have become so closely enmeshed with the goals and objectives of academic education that we are no longer justified in thinking of occupational preparation as a separate and distinct societal function.

It is now recognized that the increasing requirement for occupational competence must serve as a major determinant in the structure and function of public education. The changing technological environment has placed new demands on the educational system and has led to a new awareness of the interdependency of work and education. It has become increasingly evident that the uneducated person or the educated person who has not acquired saleable skills will find few opportunities in a society which places equal value on knowledgeable citizenship and occupational competence.

Work, in its many manifestations, occupies a dominant position in our lives. We may refer to our productive efforts as a vocation, a trade, an occupation, or a profession; but, in any case, we are describing the process of making a living. In our free society, occupational productivity provides more than sustenance; it sets the standard of living, it influences personal, family and other group relationships, and it does much to control the nature and the extent of civic participation and responsibility. In this context, there can be little doubt that vocational education, as an integral part of the total public education program, can contribute significantly to the solution of present and potential social problems.

The emergence of vocational education as an essential part of public education began more than 50 years ago with the enactment of federal legislation which

made financial support available to states for the promotion, development, and improvement of programs for occupational preparation in the public schools. The initial legislation provided support for programs in agricultural education, trade and industrial education, and home economics. Subsequent enactments provided additional support for these programs and made funds available for the support of new programs in distribution, fishery trades, and health occupations. Recent legislation has made funds available to maintain, extend, and improve existing programs of vocational education, to develop new programs, and to provide part-time employment for young people who need earnings to continue their vocational education on a full-time basis. Support is also provided for programs designed to meet the needs of persons of all ages in all communities including those preparing to enter the labor market, those in the labor market who need to upgrade their skills or to learn new ones, and those with special educational handicaps. Funds are also available for area vocational school construction, work study programs, and ancillary services to assure quality in all vocational education programs.

The availability of federal support for a broad range of programs and services has stimulated the rapid growth and development of vocational education throughout the nation. Federal assistance has been extensive, yet the planning, operation and administration of vocational education has continued to be a State responsibility. National priorities have been established to serve as guidelines for State planning, but the modification of these priorities and the development of specific programs and services have remained prerogatives of the individual states. Within this flexible administrative structure, a federal, state, and local cooperative relationship in vocational education has emerged and has become one of America's greatest resources.

In Texas, federal, state, and local cooperation has led to the development of a public vocational education program which has earned national recognition

for breadth, scope, and effectiveness. The program has grown from a few high school courses in trade, industrial, and agricultural subjects in 1917 to the present comprehensive program of occupational preparation for secondary school students, post secondary school students, adults, and persons with special needs. Programs in many occupational specializations have been tailored to fit the needs of high school students, high school graduates, high school dropouts, employed people who need retraining to achieve stability or advancement in their employment, and individuals having academic or socio-economic handicaps that prevent their successful progress in the regular vocational education program.

Each instructional program is carefully designed to provide the knowledge and skills necessary for successful employment in the occupation for which the student is being prepared. Field, shop, laboratory, and other occupational experiences are combined and coordinated with classroom instruction to make up a balanced program which recognizes and provides for the specific vocational objectives of each student.

Programs are initially developed on the basis of the actual needs of the labor market as revealed by local, regional, and statewide manpower surveys. After the need for a program is established, specific curricula and the level of instruction are structured in terms of student aptitudes, interests, and capabilities.

Vocational program planning, development, and implementation therefore reflect a synthesis of the best available information concerning the current and projected manpower needs of business and industry and a full awareness that the needs, interests, and abilities of each individual remain an important consideration in our society.

Despite these significant achievements, vocational education programs remain inadequate and do not offer full opportunities for training to meet the requirements of modern business and industry. These unfulfilled needs present a continuing challenge to public education in Texas.

## DEMOGRAPHIC AND ECONOMIC CONSIDERATIONS

### Population Growth

As noted in the introductory statements, the formulation of guidelines for the development of a comprehensive, long-range plan for vocational, technical, and adult education requires careful consideration and analysis of past and prospective changes in the society which is served by the educational system. Among the more important societal changes which must be considered are changes in the size, composition, and characteristics of the population. A rapidly increasing population, for example, results in an increasing demand for consumer goods and products of all kinds. Industry must respond to these demands by greater and more efficient production. The public schools, in turn, must face the challenge of providing quality occupational education in sufficient quantity to meet the increasing demands of the growing population for wage-earning competencies in a changing technological economy.

Texas has experienced a continuous rapid growth in population for many years and there is every indication that this trend will continue. According to current estimates, the population of the State reached 11.6 million in April 1968 and will exceed 13.5 million by 1975 in spite of a declining birth rate.

It may be expected that this 16.4% increase in the number of inhabitants during the 7-year period may result in a comparable increase in the demand for educational facilities and services at all levels.

Table I shows the actual population of the State in 1940, 1950, and 1960 and the estimated population at yearly intervals from 1968 to 1975.

### Age and Sex Distribution of Population

The age and sex distribution of the population are also factors which are of significance to educational program planners. A knowledge of these distributions helps determine the level at which certain programs should be developed and provides a guide to the establishment of programs in which a predominantly male or female enrollment is anticipated. Table II shows the age and sex distribution in 1960, 1968, 1970, and 1975.

## TABLE I, TEXAS POPULATION, 1940-1975

| YEAR | POPULATION |
|---|---|
| 1940 | 6,414,824 |
| 1950 | 7,711,194 |
| 1960 | 9,579,677 |
| 1968 | 11,604,673 |
| 1969 | 11,868,478 |
| 1970 | 12,134,647 |
| 1971 | 12,403,204 |
| 1972 | 12,674,135 |
| 1973 | 12,947,428 |
| 1974 | 13,223,102 |
| 1975 | 13,501,145 |

## TABLE II, AGE AND SEX DISTRIBUTION OF POPULATION, TEXAS, 1960-1975

| Year | Age Group | Male | Female | Total | Percent of Total Pop. in Age Group |
|---|---|---|---|---|---|
| 1960 | Under 15 | 1,613,462 | 1,560,193 | 3,173,655 | 33.1 |
| | 15-24 | 696,140 | 681,154 | 1,377,294 | 14.4 |
| | 25-44 | 1,225,093 | 1,275,492 | 2,500,585 | 26.1 |
| | 45-64 | 881,543 | 920,402 | 1,801,945 | 18.8 |
| | 65+ | 327,924 | 400,109 | 728,033 | 7.6 |
| | Totals | 4,744,162 | 4,837,350 | 9,581,512 | 100.0 |
| 1968 | Under 15 | 1,882,030 | 1,905,309 | 3,787,339 | 32.6 |
| | 15-24 | 985,384 | 998,601 | 1,983,985 | 17.1 |
| | 25-44 | 1,325,637 | 1,484,951 | 2,810,588 | 24.2 |
| | 45-64 | 1,002,194 | 1,101,839 | 2,104,033 | 18.1 |
| | 65+ | 391,203 | 527,525 | 918,728 | 7.9 |
| | Totals | 5,586,448 | 6,018,225 | 11,604,673 | 100.0 |
| 1970 | Under 15 | 1,946,454 | 1,974,995 | 3,921,449 | 32.3 |
| | 15-24 | 1,065,142 | 1,088,022 | 2,153,164 | 17.7 |
| | 25-44 | 1,358,787 | 1,536,790 | 2,895,577 | 23.9 |
| | 45-64 | 1,034,513 | 1,153,607 | 2,188,120 | 18.0 |
| | 65+ | 411,814 | 564,523 | 976,337 | 8.0 |
| | Totals | 5,816,710 | 6,317,937 | 12,134,647 | 100.0 |
| 1975 | Under 15 | 2,133,755 | 2,150,418 | 4,284,173 | 31.7 |
| | 15-24 | 1,202,772 | 1,264,133 | 2,466,905 | 18.3 |
| | 25-44 | 1,538,990 | 1,753,285 | 3,292,275 | 24.4 |
| | 45-64 | 1,092,082 | 1,260,823 | 2,352,905 | 17.4 |
| | 65+ | 457,114 | 647,773 | 1,104,887 | 8.2 |
| | Totals | 6,424,713 | 7,076,432 | 13,501,145 | 100.0 |

Source: U. S. Bureau of the Census and Bureau of Business Research, The University of Texas.

As shown in Table II, the 15-24 age group, which includes most secondary school students and post secondary school students, will increase from 1,983,985 in 1968 to 2,466,905 in 1975. This projection reveals an anticipated growth rate of more than 24% in this age group. Vocational and technical program planning at each level must be geared to meet the growing needs of this large segment of the population.

Growth is also projected for the highly productive 25-44 and 45-64 age groups. Many individuals in these groups will require upgrade training in their present occupations or retraining into new occupations required by the changing technological economy. Existing adult education programs must be revised and expanded and new adult programs must be developed and implemented if public education is to meet the demands of the future.

Urbanization

Changes in the size and composition of the State's population have been accompanied by increasing urbanization for many years. In 1940, for example, about 45% of the population of the State lived in urban areas and 55% were classified as rural. By 1960, the urban population had increased to more than 75% and less than 25% of the people lived in rural areas. Current estimates indicate that the rural population of the State has continued to decrease and about eight out of every ten Texans now live in towns and cities. The movement of the population to urban centers has been accelerated in recent years by a rapid increase in the number of job opportunities in the industrialized cities and a decreasing requirement for agricultural workers in the rural areas. These influences are still strongly at work and the process of urbanization is expected to continue. Redirection of occupational education to provide realistic programs based on the established needs of the predominantly urban society may be necessary.

Labor Force

In April 1968 there were more than 4.3 million people in the Texas labor force and about 4.2 million (97.7%) were gainfully employed. Nearly 7% (278,000) of the

total gainfully employed were engaged in agricultural occupations. Almost 17% (709,000) were employed in manufacturing industries. About 3.2 million (76%) of the employed were engaged in occupations other than agricultural or manufacturing. About 100,000 Texans (2.3% of the total labor force of 4.3 million) were unemployed. A report issued by the Texas Employment Commission during April 1968 indicates that job opportunities in nonagricultural employment have increased while farm employment has continued to decline. The report also points out that nearly 57% of the unemployed were under 45 years of age. The implications for vocational education are that much of the unemployment, particularly among younger workers, may have been due to inadequate occupational preparation in the public schools.

The labor force, as defined by the U. S. Department of Labor, includes all individuals over 14 years of age who are working or seeking work. Recent estimates released by the U. S. Department of Labor indicate that the Texas labor force will increase from the present 4.3 million to more than 5 million in 1975. This means that the labor force will increase by about 100,000 persons per year during the 7-year period. Whether these individuals become productive workers or join the ranks of the unemployed may depend to a large extent on the quality and quantity of occupational education at the secondary and post secondary school levels.

Employment and Employment Opportunities

As noted in a preceding paragraph, the number of employed persons in Texas exceeded 4.2 million in April 1968. Figure I shows the distribution of these 4.2 million workers among the major occupational groups employed within the State. Note that employment in the professional and technical occupational group represents only 10.8% of the total and most of the State's workers are engaged in employment that emphasizes vocational, rather than academic, preparation.

Figure II reveals 69.8% of the State's high school students are enrolled in college preparatory or general academic programs which do not involve occupational preparation. Only 30.2% of the high school students in the State are enrolled in

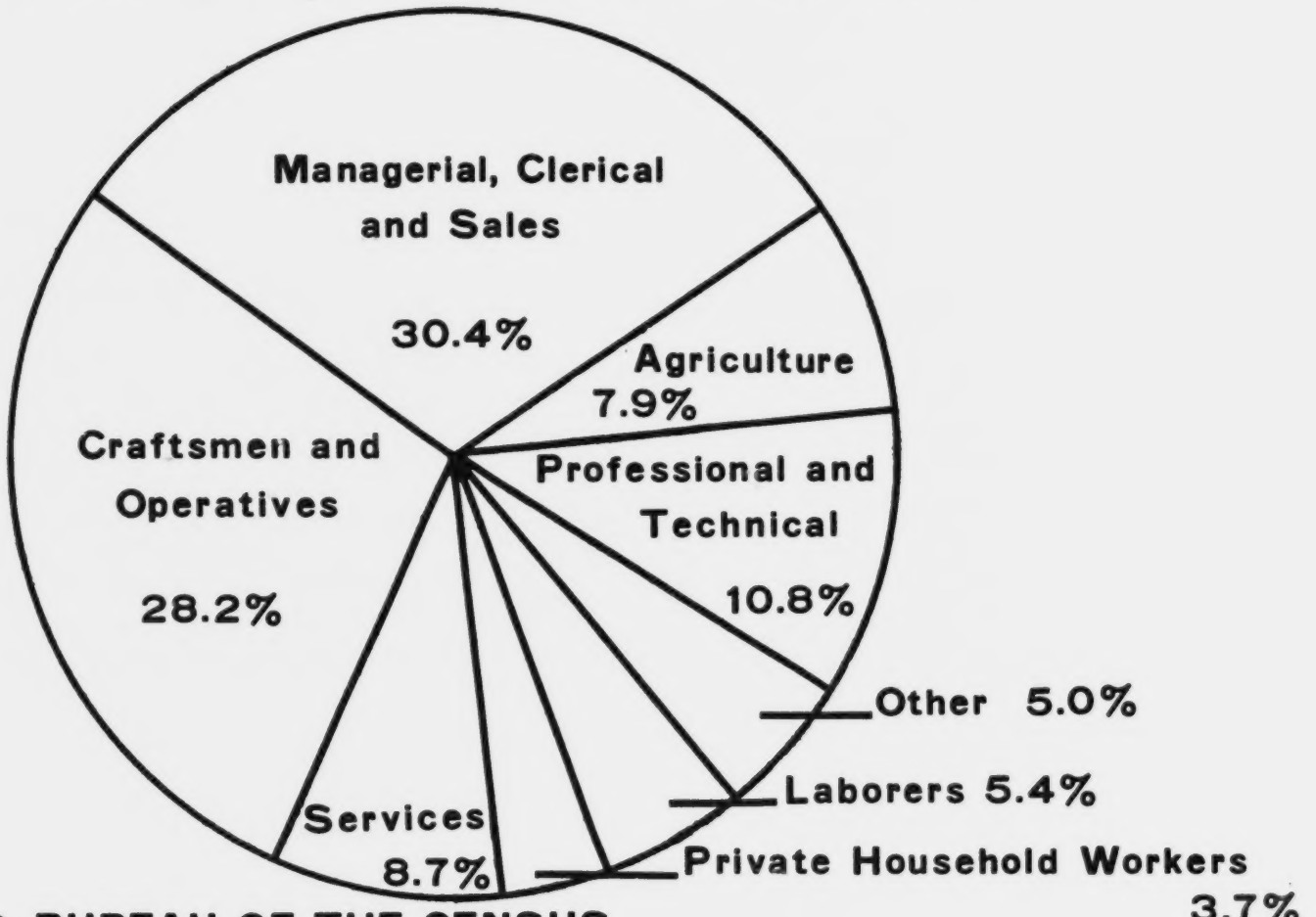
vocational education. Figure II also clearly shows that more than half of the total number of students enrolled in vocational education are enrolled in homemaking.

A comparison of Figure I and Figure II reveals there is little correlation between the types of programs followed by high school students and the types of employment available to them after graduation. Note that although 30.4% of the employed people in the State are working in the managerial, clerical and sales occupational group, only 1.4% of the State's high school students are enrolled in distributive education and only .5% are enrolled in office education programs. More than 28% of the State's workers are employed as craftsmen and operatives, while only 2.8% of high school students are enrolled in programs leading to employment in trades and industry. On the positive side, it should be noted that 7.2% of the high school students are enrolled in agricultural education and 7.9% of the employed are working in agricultural occupations. It should also be noted that most of the students enrolled in homemaking are engaged in the acquisition of useful homemaking skills and do not intend to seek gainful employment as household workers. On the whole, the imbalance between enrollment in high school vocational education programs and the type of employment actually available indicates that high school programs should be redirected to provide more realistic occupational preparation for the young people of the State.

The U. S. Department of Labor has predicted there will be no change in the demand for non-farm laborers in the years ahead, and there will be a decline in the need for farm workers. Increasing opportunities for employment are anticipated in all other occupational groups.

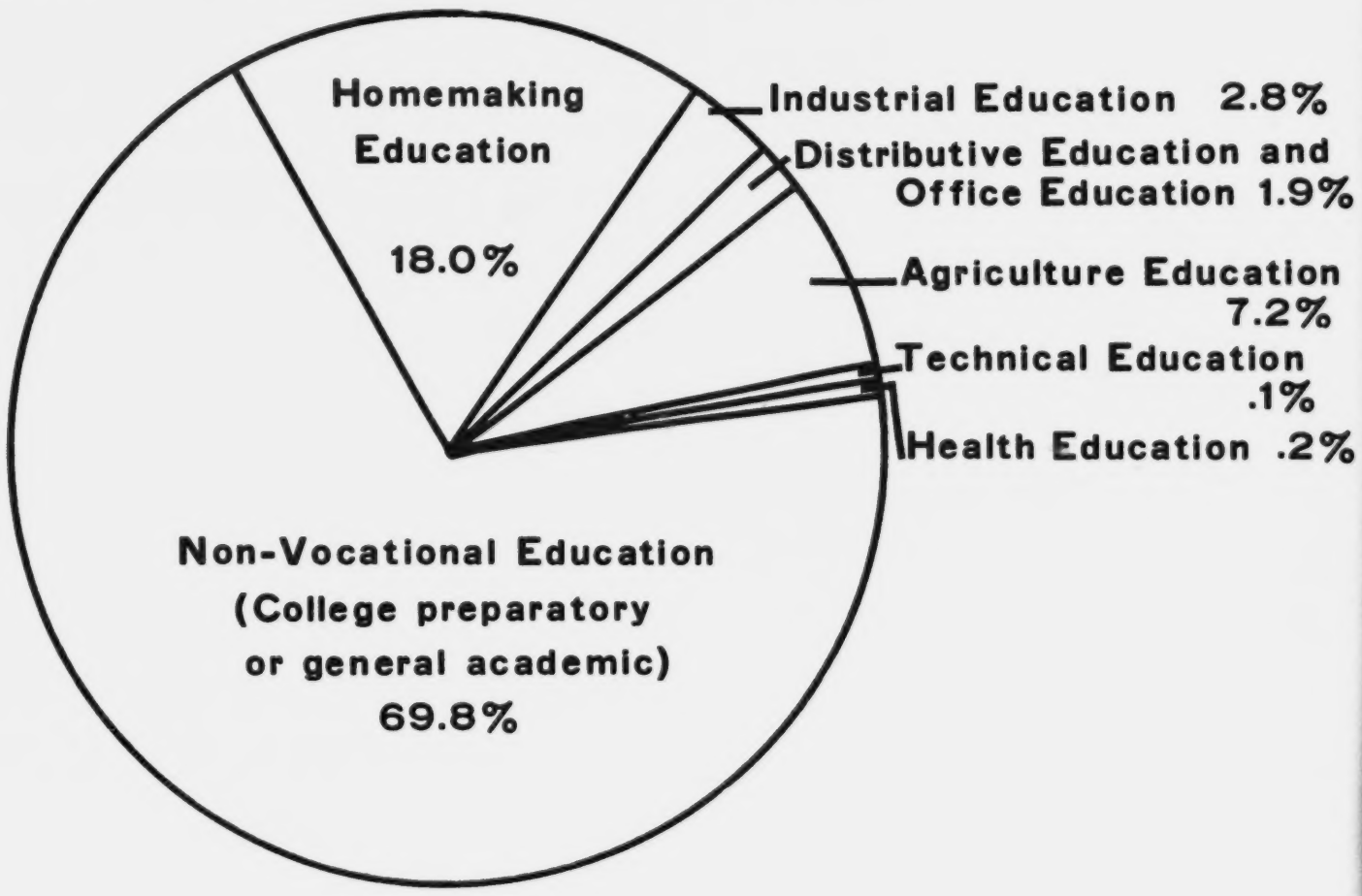
Manpower surveys conducted by the Texas Employment Commission have revealed a continuing need for workers in the industrialized metropolitan areas of the State. Surveys to determine employment opportunities in specific occupations

# FIGURE I - EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP




SOURCE: U. S. BUREAU OF THE CENSUS

# FIGURE II - HIGH SCHOOL ENROLLMENT BY PROGRAM



have also been conducted in almost 300 smaller communities. Surveys of this type have not been conducted in every population center of the State, but the results obtained thus far have provided a basis for an estimate of statewide manpower needs. The figures shown in Figure III, for example, were extrapolated from the results of surveys conducted in 282 of the State's smaller communities. These surveys extended over a period of three years beginning in 1964 and resulted in the preparation of estimates of statewide manpower needs in eight occupational areas through 1971. The extension of the results obtained in surveys of smaller communities to represent statewide needs tends to overestimate the number of employment opportunities in agricultural occupations and tends to underestimate the total manpower needs in industrial and technical occupations. In spite of this limitation, the survey results and the estimate of future statewide needs have served as an objectively determined basis for vocational program planning.

The implications of the various studies are that the future growth of occupational education should parallel the growth in employment opportunities and priorities for program development should be established in the occupational areas where the greatest growth is anticipated.

TABLE III - ESTIMATED STATEWIDE NEED FOR NEW EMPLOYEES IN EIGHT OCCUPATIONAL AREAS 1968-71

| Occupational Area | Immediate Job Vacancies 1968 | New Employees Needed 1969 | New Employees Needed 1970 | New Employees Needed 1971 | Total 1968-71 |
|---|---|---|---|---|---|
| Agricultural | 25,968 | 74,325 | 39,797 | 33,862 | 173,952 |
| Distributive | 14,429 | 83,367 | 75,701 | 65,928 | 239,425 |
| Health | 1,367 | 18,415 | 17,222 | 28,572 | 65,576 |
| Home Economics | 9,588 | 19,463 | 11,648 | 10,571 | 51,270 |
| Industrial | 16,416 | 131,187 | 95,331 | 97,771 | 340,705 |
| Office | 1,738 | 35,465 | 32,984 | 31,565 | 101,752 |
| Public Services | 1,188 | 1,983 | 2,135 | 1,760 | 7,066 |
| Technical | 2,346 | 9,929 | 8,650 | 8,100 | 29,025 |
| Totals | 73,040 | 374,134 | 283,468 | 278,129 | 1,008,771 |

## SCHOOL ENROLLMENTS AND ENROLLMENTS IN VOCATIONAL EDUCATION

### High School Enrollments and High School Graduates

Public high school enrollments totaled 679,102 in 1966-67. There were 126,573 public high school graduates during that year. Table IV shows the projected high school enrollment and the projected number of high school graduates for each succeeding school year through 1975-76.

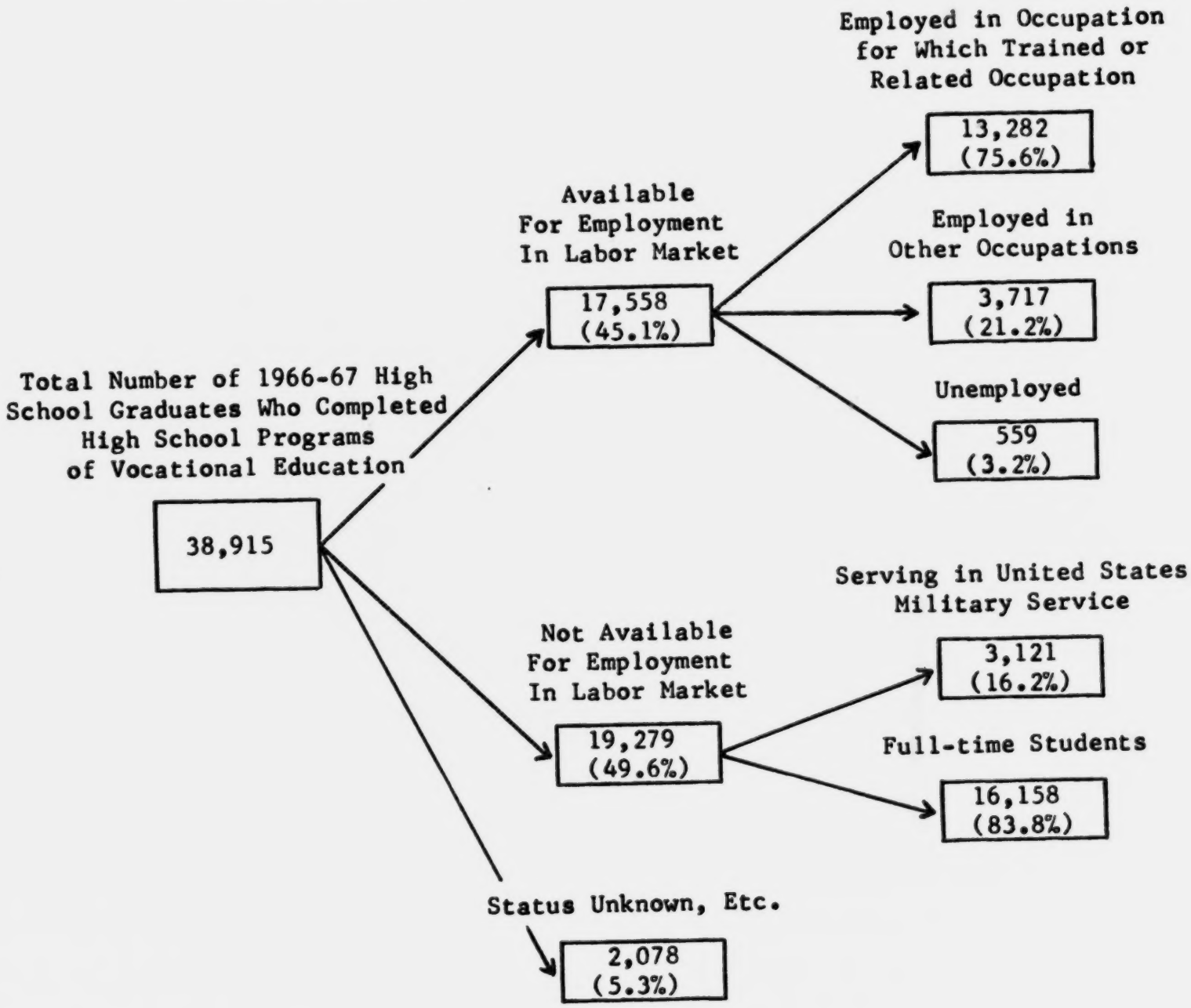
TABLE IV - PUBLIC HIGH SCHOOL ENROLLMENTS AND NUMBER OF PUBLIC HIGH SCHOOL GRADUATES, TEXAS, 1966-67 TO 1975-76

| School Year | High School Enrollments | High School Graduates |
|---|---|---|
| 1966-67 | 679,102 | 126,573 |
| 1967-68 | 711,997 | 130,767 |
| 1968-69 | 744,649 | 138,618 |
| 1969-70 | 769,199 | 146,900 |
| 1970-71 | 789,853 | 152,929 |
| 1971-72 | 807,244 | 157,524 |
| 1972-73 | 817,393 | 159,238 |
| 1973-74 | 826,909 | 163,859 |
| 1974-75 | 835,049 | 166,956 |
| 1975-76 | 835,164 | 166,039 |

### Employment of High School Graduates Who Completed Vocational Education Programs

In 1966-67, 38,915 of the State's high school graduates completed programs of vocational education (other than homemaking) prior to graduation. A follow-up study completed about six months after graduation revealed the employment information shown in Figure III. Note particularly that more than three-fourths of the graduates who completed vocational education programs and who were available for employment six months later were employed in the occupation for which trained or in a related occupation. Only 3.2 percent of the total number available for employment were unemployed.

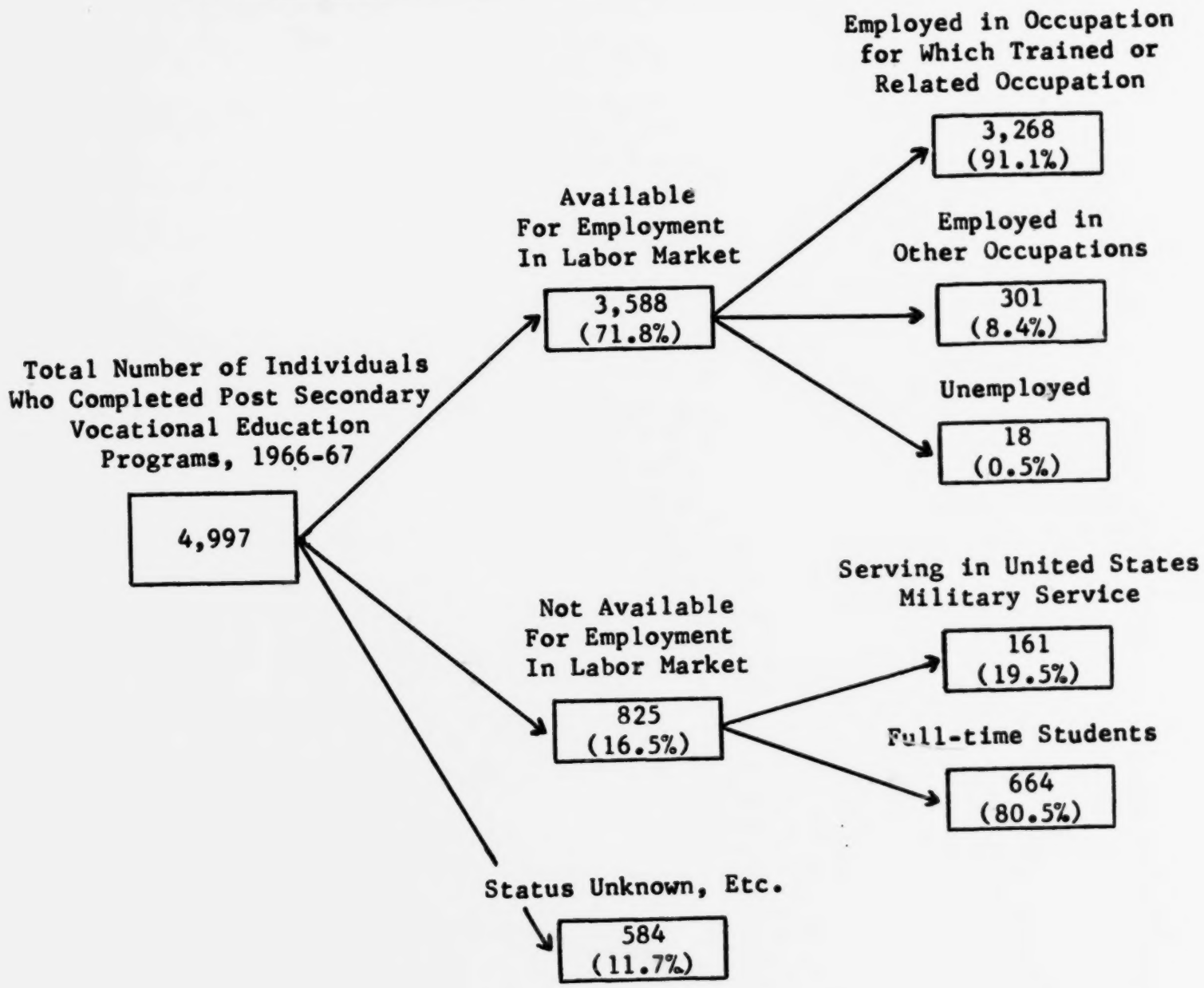
FIGURE III - EMPLOYMENT OF 38,915 1966-67 HIGH SCHOOL GRADUATES WHO COMPLETED HIGH SCHOOL PROGRAMS OF VOCATIONAL EDUCATION




Employment of Individuals Who Completed Post Secondary Vocational Education Programs

Figure IV shows that of 4,997 individuals who completed post secondary programs of vocational education in 1966-67, 71.8 percent were available for employment and 28.2 percent were unavailable for employment six months later. Most significantly, 91.1 percent of the total number available for employment were employed in the occupation for which trained or a related occupation. Only 0.5 percent of this group were unemployed.

FIGURE IV - EMPLOYMENT OF 4,997 INDIVIDUALS WHO COMPLETED POST SECONDARY VOCATIONAL EDUCATION PROGRAMS IN 1966-67




## Total Enrollments in Vocational Education

Total enrollments in vocational education have increased for many years, and the increase has been particularly evident since the implementation of programs and services made possible under the Vocational Education Act of 1963. Table V compares the growth of enrollments in vocational education at the secondary, post secondary, adult, and special needs levels during the three-year period preceding the implementation of the 1963 Act and the three-year period following the implementation of the Act. The effects of the 1963 legislation are readily apparent. Note that the total enrollment in vocational education increased 27.7% during the 1963-66 period.

TABLE V - GROWTH OF ENROLLMENTS IN VOCATIONAL EDUCATION, 1960-63 AND 1963-66

| Program Level | Enrollment 1960 | Enrollment 1963 | Enrollment 1966 | Percent Growth 1960-63 | Percent Growth 1963-66 |
|---|---|---|---|---|---|
| Secondary | 149,635 | 168,828 | 205,229 | 12.8 | 21.6 |
| Post Secondary | 0 | 11,254 | 26,034 | - | 131.3 |
| Adult | 209,551 | 265,077 | 332,424 | 26.5 | 25.4 |
| Special Needs | 0 | 0 | 4,684 | - | - |
| Total | 359,186 | 445,159 | 568,371 | 23.9 | 27.7 |

## High School Vocational Education Enrollment

In 1964, 27.4% of the public high school students of the State were enrolled in vocational education. This percentage increased to 28.5 in 1965 and 30.2 in 1966. There is every indication that at least 30.2% of the State's high school students will continue to enroll in vocational education, and there is good reason to expect that if sufficient programs and services are made available the percentage of high school students enrolled in vocational education might increase to 40%, or even 50%, by 1975. Table VI shows the estimated high school enrollment for each school year through 1975-76 and three alternate estimates of enrollments in vocational education through 1975-76. The first estimate assumes that 30.2% of high school students will enroll in vocational education during each school year between 1966 and 1975. The second estimate provides for a gradual increase in vocational education enrollments from 30.2% in 1966 to 40% in 1975. The third estimate assumes an increase in vocational enrollments to 50% by 1975. Note that the first estimate, which assumes no increase in the percentage of high school students enrolled in vocational education, nevertheless anticipates an increase in the number of enrollees from 205,229 in 1966-67 to 252,219 in 1975-76. This estimate, which can surely be considered conservative, indicates that vocational education programs and facilities must be provided for almost 47,000 more students in 1975-76 than in 1966-67. According to the

second estimate, the 1975-76 enrollment in vocational education will be about two-thirds greater than in 1966-67 and the third estimate indicates that enrollments in vocational education will more than double during the 9-year period.

TABLE VI - ESTIMATED HIGH SCHOOL ENROLLMENT AND ENROLLMENT IN VOCATIONAL EDUCATION, 1966-67 TO 1975-76

| School Year | High School Enrollment | Vocational Education Enrollment 30.2% of High School Enrollment | Vocational Education Enrollments Increase to 40% by 1975-76 | Vocational Education Enrollments Increase to 50% by 1975-76 |
|---|---|---|---|---|
| 1966-67 | 679,102 | 205,229 | - | - |
| 1967-68 | 711,997 | 215,023 | 222,784 | 230,687 |
| 1968-69 | 744,649 | 224,884 | 241,117 | 257,649 |
| 1969-70 | 769,199 | 232,298 | 257,451 | 283,065 |
| 1970-71 | 789,853 | 238,536 | 272,973 | 308,043 |
| 1971-72 | 807,244 | 243,788 | 287,782 | 332,585 |
| 1972-73 | 817,393 | 246,853 | 300,310 | 354,749 |
| 1973-74 | 826,909 | 249,727 | 312,820 | 377,071 |
| 1974-75 | 835,049 | 252,185 | 325,001 | 399,153 |
| 1975-76 | 835,164 | 252,219 | 334,066 | 417,582 |

## Post Secondary Vocational Education Enrollment

As previously shown in Table V, enrollment in post secondary vocational education increased 131.3% between 1963 and 1966. Although it is unlikely that the rate of increase established between 1963 and 1966 will continue, it is reasonable to expect that enrollments in post secondary vocational education will continue to increase at a rate which is equal to or greater than the rate of increase in total post secondary enrollments. Recent estimates prepared by the Coordinating Board, Texas College and University System, indicate the total post secondary enrollment will increase from 62,289 in 1966-67 to 216,917 in 1975-76. During the 1966-67 school year, 41.8% of all public post secondary students were enrolled in vocational education. A conservative estimate of future post secondary vocational education enrollments, based on the assumption that 41.8% of the State's post secondary students will continue to enroll in vocational education is shown in Table VII. Since it is quite possible

that enrollments in vocational education may increase more rapidly than total enrollments, two alternate estimates are provided in Table VII. The first assumes that the number of students enrolled in vocational education will gradually increase from 41.8% in 1966-67 to 50% in 1975-76. The second alternate estimate assumes that enrollments in vocational education will increase at a more rapid rate and will reach 60% of the total enrollment by 1975-76. Significantly, the lowest estimate shown in Table VII indicates that post secondary vocational education must be provided for more than 90,000 students in 1975.

TABLE VII - ESTIMATED POST SECONDARY ENROLLMENT AND ENROLLMENT IN POST SECONDARY VOCATIONAL EDUCATION, 1966-67 TO 1975-76

| School Year | Post Secondary Enrollment | Vocational Education Enrollment 41.8% of Post Secondary Enrollment | Vocational Education Enrollments Increase to 50% by 1975-76 | Vocational Education Enrollments Increase to 60% by 1975-76 |
|---|---|---|---|---|
| 1966-67 | 62,289 | 26,034 | - | - |
| 1967-68 | 79,471 | 32,219 | 33,942 | 34,824 |
| 1968-69 | 96,653 | 40,401 | 42,160 | 44,306 |
| 1969-70 | 113,835 | 47,583 | 50,691 | 54,481 |
| 1970-71 | 131,017 | 54,765 | 59,534 | 65,351 |
| 1971-72 | 148,199 | 61,947 | 68,690 | 76,915 |
| 1972-73 | 165,381 | 69,129 | 78,159 | 89,173 |
| 1973-74 | 182,563 | 76,311 | 87,941 | 102,126 |
| 1974-75 | 199,735 | 83,489 | 98,030 | 115,766 |
| 1975-76 | 216,917 | 90,671 | 108,459 | 130,150 |

## Adult Enrollments in Vocational Education

For several years, adult enrollments in vocational education have exceeded high school enrollments in vocational education by about 60% and increases in high school enrollments have been accompanied by parallel increases in adult enrollments. Inasmuch as this pattern of parallel development is now well established it seems reasonable to expect there will be no significant change in the ratio of adult enrollments to high school enrollments in the near future. Table VIII presents three estimates of adult enrollments in vocational education for each school year through 1975-76. The estimates assume the validity of the estimates of high school enrollments in

vocational education as previously shown in Table VI and are based on the premise that adult enrollments in vocational education will continue to exceed high school enrollments in vocational education by 60%. Expressed in another way, the estimates assume there will be 1.6 adult enrollments for every high school enrollment in the years ahead. For example, if 252,219 high school students are enrolled in vocational education in 1975 as estimated in Table VI, there will be 403,550 adults enrolled in vocational education as shown in Table VIII. If high school enrollments in vocational education reach 334,066 as estimated in Table VI, then adult enrollments will reach 534,506 as shown in Table VIII. If the largest of the estimates shown in Table VI proves to be correct and 417,582 high school students are enrolled in vocational education in 1975-76, then 668,131 individuals will be enrolled in adult vocational education as estimated in Table VIII.

TABLE VIII - ESTIMATED ADULT ENROLLMENTS IN VOCATIONAL EDUCATION, 1966-67 TO 1975-76

| School Year | Adult Enrollments Estimate 1 | Adult Enrollments Estimate 2 | Adult Enrollments Estimate 3 |
|---|---|---|---|
| 1966-67 | 332,424 | - | - |
| 1967-68 | 344,037 | 356,454 | 369,099 |
| 1968-69 | 359,814 | 385,787 | 412,238 |
| 1969-70 | 371,677 | 411,922 | 452,904 |
| 1970-71 | 381,658 | 436,757 | 492,869 |
| 1971-72 | 390,061 | 460,451 | 532,136 |
| 1972-73 | 394,965 | 480,496 | 567,598 |
| 1973-74 | 399,563 | 500,512 | 603,314 |
| 1974-75 | 403,496 | 520,002 | 638,645 |
| 1975-76 | 403,550 | 534,506 | 668,131 |

Enrollment of Persons with Special Needs

Vocational education programs for persons with academic or socio-economic handicaps preventing their progress in the regular vocational education program were first provided for by the Vocational Education Act of 1963. These programs, which might be thought of as "dropout prevention" programs, were first implemented in Texas in late 1964. 938 potential dropouts were enrolled at this time. Enrollment increased to 2,815 in 1965 and 4,684 in 1966. Due to the special nature

of this program it is difficult to estimate any kind of trend in future enrollments. Although there will probably be some increase in enrollments during the years ahead, it is unlikely that the rate of growth shown during the first two years of operation will continue. During the 1966-67 school year, enrollments in the special needs program were equivalent to 2.3% of the high school enrollment in vocational education. A conservative estimate of future enrollments in special needs programs can be based on the assumption that the ratio of special needs enrollments to high school enrollments in vocational education will continue through 1975-76. Table IX presents three estimates of enrollments in special needs programs through 1975-76. In each case, the estimates are based on the premise that enrollment in these programs will be equivalent to 2.3% of the estimated high school enrollments previously shown in Table VI. It should be emphasized, however, that the number of persons who may become eligible for enrollment in these special needs programs during the years ahead remains unpredictable.

TABLE IX - ESTIMATED ENROLLMENT IN SPECIAL NEEDS PROGRAMS, 1966-67 TO 1975-76

| School Year | Special Needs Enrollments Estimate 1 | Special Needs Enrollments Estimate 2 | Special Needs Enrollments Estimate 3 |
|---|---|---|---|
| 1966-67 | 4,684 | - | - |
| 1967-68 | 4,946 | 5,124 | 5,306 |
| 1968-69 | 5,172 | 5,546 | 5,926 |
| 1969-70 | 5,343 | 5,921 | 6,510 |
| 1970-71 | 5,486 | 6,278 | 7,085 |
| 1971-72 | 5,607 | 6,619 | 7,649 |
| 1972-73 | 5,678 | 6,907 | 8,159 |
| 1973-74 | 5,744 | 7,195 | 8,673 |
| 1974-75 | 5,800 | 7,475 | 9,181 |
| 1975-76 | 5,801 | 7,684 | 9,604 |

## Projected Total Enrollment in Vocational Education

Estimates of future enrollments in high school, post secondary, adult, and special needs vocational education programs were presented in Table VI, VII, VIII, and IX. Table X presents a summation of the estimates for the four program levels and provides a projection of the total enrollment in vocational education through

1975-76. Note that estimate 1, which is based on rather conservative assumptions and predicts little more than preservation of the status quo in regard to the apportionment of enrollments in vocational education, indicates that the total enrollment will increase from 568,371 in 1966 to 752,241 in 1975. The projected 1975 enrollment is more than 32% greater than the actual enrollment in 1966. Estimates 2 and 3 indicate increases of 73.3% and 115.6% respectively.

TABLE X - PROJECTED TOTAL ENROLLMENT IN VOCATIONAL EDUCATION, 1966-67 TO 1975-76

| School Year | Total Enrollment In Vocational Education Estimate 1 | Total Enrollment In Vocational Education Estimate 2 | Total Enrollment In Vocational Education Estimate 3 |
|---|---|---|---|
| 1966-67 | 568,371 | - | - |
| 1967-68 | 596,225 | 618,304 | 639,916 |
| 1968-69 | 630,271 | 674,610 | 720,119 |
| 1969-70 | 656,901 | 725,985 | 796,960 |
| 1970-71 | 680,445 | 775,542 | 873,348 |
| 1971-72 | 701,403 | 823,542 | 949,285 |
| 1972-73 | 713,625 | 865,872 | 1,019,679 |
| 1973-74 | 731,345 | 908,468 | 1,091,184 |
| 1974-75 | 744,970 | 950,508 | 1,162,745 |
| 1975-76 | 752,241 | 984,715 | 1,225,467 |

Enrollments in Major Program Areas of Vocational Education

The growth of enrollments at the secondary, post secondary, adult and special needs levels in each of the seven major program areas of vocational education is shown in Table XI. Note that in spite of general increases in enrollments between 1963 and 1966, annual growth rates in specific programs have fluctuated widely and definite trends in individual program growth are not readily apparent. For this reason, a realistic estimate of future enrollments by program cannot be made. In this respect, however, it should be noted that in 1966-67 total vocational enrollments were distributed among the seven major programs as shown in Table XII. Inasmuch as current forecasts of the future needs of our technological society indicate a declining need for agricultural workers and an increasing need for

workers with business and industrial specializations, it is probable that the distribution of total enrollments among specific programs will be much different in the years ahead.

TABLE XI - SECONDARY, POST SECONDARY, ADULT, AND SPECIAL NEEDS LEVEL ENROLLMENTS IN MAJOR PROGRAM AREAS OF VOCATIONAL EDUCATION, 1963-66

| | 1963 | Percent Change 1962-63 | 1964 | Percent Change 1963-64 | 1965 | Percent Change 1964-65 | 1966 | Percent Change 1965-66 | Percent Change 1963-66 |
|---|---|---|---|---|---|---|---|---|---|
| AGRICULTURE | 159,265 | +7.4 | 172,519 | +8.3 | 196,705 | +14.0 | 258,728 | +31.5 | +62.5 |
| Secondary | 47,476 | +1.9 | 48,646 | +1.9 | 49,214 | +1.2 | 49,144 | -0.1 | +3.5 |
| Post Secondary | 0 | 0 | 0 | 0 | 0 | 0 | 32 | - | - |
| Adult | 111,789 | +10.0 | 123,873 | +10.8 | 147,426 | +19.0 | 209,515 | +42.1 | +87.4 |
| Special Needs | 0 | 0 | 0 | 0 | 65 | - | 37 | -43.1 | - |
| DISTRIBUTIVE | 35,870 | +2.1 | 36,363 | +1.4 | 38,205 | +5.1 | 38,042 | -0.4 | +6.1 |
| Secondary | 6,483 | +12.5 | 8,130 | +25.4 | 8,947 | +10.0 | 9,387 | +4.9 | +44.8 |
| Post Secondary | 114 | +103.6 | 173 | +51.8 | 204 | +17.9 | 316 | +54.9 | +177.2 |
| Adult | 29,273 | -0.2 | 28,041 | -4.2 | 28,946 | +3.2 | 28,227 | -2.5 | -3.6 |
| Special Needs | 0 | 0 | 19 | - | 108 | +468.4 | 112 | +3.7 | - |
| HOMEMAKING | 183,823 | +3.5 | 177,621 | -3.4 | 180,536 | +1.6 | 174,301 | -3.5 | -5.2 |
| Secondary | 100,966 | -1.3 | 97,377 | -3.6 | 105,620 | +8.5 | 122,308 | +15.8 | +21.1 |
| Post Secondary | 1,461 | +10.3 | 0 | -100.0* | 0 | 0 | 140 | - | -90.4 |
| Adult | 81,396 | +10.0 | 80,083 | -1.6 | 73,867 | -7.8 | 50,495 | -31.6 | -38.0 |
| Special Needs | 0 | 0 | 161 | - | 1,049 | +551.6 | 1,358 | +29.5 | - |
| TRADES & INDUS. | 49,820 | +14.6 | 51,964 | +4.3 | 53,147 | +2.3 | 56,868 | +7.0 | +14.1 |
| Secondary | 13,360 | +8.3 | 17,177 | +28.6 | 18,741 | +9.1 | 18,802 | +0.3 | +40.7 |
| Post Secondary | 460 | +31.4 | 686 | +49.1 | 889 | +29.6 | 1,839 | +106.9 | +299.8 |
| Adult | 36,000 | +16.9 | 33,363 | -7.3 | 31,962 | -4.2 | 33,176 | +3.8 | -7.8 |
| Special Needs | 0 | 0 | 738 | - | 1,555 | +110.7 | 3,051 | +96.2 | - |
| TECHNICAL | 12,121 | +45.2 | 14,843 | +22.5 | 20,014 | +34.8 | 18,170 | -10.1 | +49.9 |
| Secondary | 543 | +153.7 | 626 | +15.3 | 1,153 | +84.2 | 977 | -15.3 | +79.9 |
| Post Secondary | 5,719 | +2.7 | 8,640 | +51.1 | 14,039 | +62.5 | 10,692 | -23.8 | +87.0 |
| Adult | 5,859 | +128.2 | 5,577 | -4.8 | 4,822 | -13.5 | 6,470 | +34.2 | +10.4 |
| Special Needs | 0 | 0 | 0 | 0 | 0 | 0 | 31 | - | - |
| HEALTH | 4,260 | +13.8 | 4,076 | -4.3 | 4,542 | +11.4 | 6,693 | +47.4 | +57.1 |
| Secondary | 0 | 0 | 0 | 0 | 0 | 0 | 1,347 | - | - |
| Post Secondary | 3,500 | - | 1,442 | -58.8* | 1,900 | +31.8 | 2,128 | +12.0 | -39.2* |
| Adult | 760 | -79.7* | 2,634 | +246.6 | 2,642 | +0.3 | 3,123 | +18.2 | +310.9 |
| Special Needs | 0 | 0 | 0 | 0 | 0 | 0 | 95 | - | - |
| OFFICE | 0 | 0 | 801 | - | 4,590 | +473.0 | 15,569 | +239.2 | - |
| Secondary | 0 | 0 | 616 | - | 1,378 | +123.7 | 3,264 | +136.9 | - |
| Post Secondary | 0 | 0 | 24 | - | 2,462 | +10,158 | 10,887 | +342.2 | - |
| Adult | 0 | 0 | 141 | - | 712 | +405.0 | 1,418 | +99.2 | - |
| Special Needs | 0 | 0 | 20 | - | 38 | +90.0 | 0 | - | - |
| TOTALS | 445,159 | +6.9 | 458,187 | +2.9 | 497,739 | +8.6 | 568,371 | +14.2 | +27.7 |
| Secondary | 168,828 | +1.0 | 172,572 | +2.2 | 185,053 | +7.2 | 205,229 | +10.9 | +21.6 |
| Post Secondary | 11,254 | +54.2 | 10,965 | -2.6* | 19,494 | +77.8 | 26,034 | +33.5 | +131.3 |
| Adult | 265,077 | +9.5 | 273,712 | +3.3 | 290,377 | +6.1 | 332,424 | +14.5 | +25.4 |
| Special Needs | 0 | 0 | 938 | - | 2,815 | +200.1 | 4,684 | +66.4 | - |

* These apparent decreases were due to changes in the reporting system rather than actual changes in enrollments.

TABLE XII - DISTRIBUTION OF TOTAL ENROLLMENTS IN VOCATIONAL EDUCATION BY PROGRAM, 1966-67

| Program | Full-time Enrollments | Part-time (Adult) Enrollments | Total Enrollments |
|---|---|---|---|
| Agriculture | 49,213 | 209,515 | 258,728 |
| Distribution | 9,815 | 28,227 | 38,042 |
| Homemaking | 123,806 | 50,495 | 174,301 |
| Trades and Industry | 23,692 | 33,176 | 56,868 |
| Technical | 11,700 | 6,470 | 18,170 |
| Health | 3,570 | 3,123 | 6,693 |
| Office | 14,151 | 1,418 | 15,569 |
| Totals | 235,947 | 332,424 | 568,371 |

## EXPENDITURES FOR VOCATIONAL EDUCATION IN TEXAS

### Past Expenditures

Table XIII shows state, local and federal expenditures for vocational education in Texas during each school year from 1960-61 through 1966-67. The abrupt increase in expenditures in 1964-65 was due to the implementation of programs and services funded under the Vocational Education Act of 1963. The larger expenditures for succeeding years have been due, for the most part, to the continued availability of funds under the 1963 Act. At this point, it must be clearly noted that according to present provisions of the law, federal funds for vocational education will not increase significantly in the years ahead. About $15.8 million will continue to be allocated to Texas until such time as the existing law is amended to provide additional funds. Amendments to the law have been proposed, but at the present time there is no assurance that additional federal funds for vocational education will become available. Under these circumstances an increasingly larger share of the total expenditures for vocational education must come from state and local sources.

TABLE XIII - FEDERAL, STATE, AND LOCAL EXPENDITURES
FOR VOCATIONAL EDUCATION, FISCAL YEAR 1960-61 THRU 1966-67

| School Year | Federal | State | Local | Total |
|---|---|---|---|---|
| 1960-61 | $ 2,143,785 | $16,603,227 | $ 860,392 | $19,607,404 |
| 1961-62 | 2,216,849 | 20,981,989 | 1,120,596 | 24,319,434 |
| 1962-63 | 2,249,820 | 21,680,580 | 1,247,961 | 25,178,361 |
| 1963-64 | 2,636,196 | 22,957,609 | 1,320,696 | 26,914,501 |
| 1964-65 | 9,033,178 | 24,638,135 | 7,639,767 | 41,311,080 |
| 1965-66 | 14,105,092 | 28,753,112 | 11,815,646 | 54,673,850 |
| 1966-67 | 15,824,048 | 28,348,418 | 13,015,029 | 57,187,495 |

## Expenditures for Vocational Education Per Enrollee

An analysis of expenditures for vocational education in Texas in 1966-67 is presented in Table XIV. The analysis shows the total expenditure and average expenditure per enrollee for instruction at each level (secondary, post secondary, adult, and special needs) and the total expenditure and average expenditure per enrollee for administration, supervision, teacher education, research, guidance and counseling, instructional equipment, and construction for all levels combined. Instructional expenditures, for the purpose of this analysis, are limited to teacher salaries, teacher travel, and instructional supplies. All other expenditures are treated separately. Note that the total expenditure for the work study program is shown but this expenditure is not reported on a "per enrollee" basis. The total expenditure for the work study program in 1966-67 was equivalent to 2.2% of the total expenditure for instruction at the secondary and post secondary levels. Estimates of future expenditures for the work study program (see Table XIX) are based on the assumption that the 2.2% relationship will continue.

## TABLE XIV - EXPENDITURES FOR VOCATIONAL EDUCATION PER ENROLLEE BY SPECIFIC PURPOSE, 1966-67

| Purpose | Expenditure | Number of Enrollees | Average Expenditure Per Enrollee |
|---|---|---|---|
| Instruction, Secondary | $29,009,196 | 205,229 | $141.35 |
| Instruction, Post Secondary | 3,413,261 | 26,034 | 131.11 |
| Instruction, Adult | 2,598,991 | 332,424 | 7.82 |
| Instruction, Special Needs | 1,359,224 | 4,684 | 290.18 |
| Administration, All Levels | 1,593,344 | 568,371 | 2.80 |
| Supervision, All Levels | 2,040,287 | 568,371 | 3.59 |
| Teacher Education, All Levels | 245,824 | 568,371 | .43 |
| Research, All Levels | 447,166 | 568,371 | .79 |
| Guidance and Counseling, All Levels | 226,802 | 568,371 | .40 |
| Instructional Equipment, All Levels | 4,647,221 | 568,371 | 8.18 |
| Construction, All Levels | 10,905,678 | 568,371 | 19.19 |
| Work Study Program | 700,501 | - | - |
| TOTAL EXPENDITURE | $57,187,495 | | |

### Estimated Expenditures Necessary to Support Anticipated Enrollments in Vocational Education Through 1975-76

The average expenditure per enrollee figures shown in Table XIV have been associated with the estimates of future enrollments in vocational education which were presented in preceding tables and estimates of future expenditures necessary to support future enrollments have been prepared as shown in Tables XV through XXVI. These estimates of future expenditures were obtained by multiplying estimated future enrollments by the average expenditures per enrollee in 1966-67. For example, the lowest estimate of expenditures for high school level instruction in vocational education in 1975-76 ($35,651,156) was obtained by multiplying the lowest estimated 1975-76 high school enrollment in vocational education (252,219) by the average expenditure per enrollee for secondary level instruction in vocational education in 1966-67 ($141.35).

## TABLE XV - ESTIMATED EXPENDITURES FOR INSTRUCTION, HIGH SCHOOL LEVEL VOCATIONAL EDUCATION, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $29,009,196 | $ - | $ - |
| 1967-68 | 30,393,501 | 31,490,518 | 32,607,607 |
| 1968-69 | 31,787,353 | 34,081,888 | 36,418,686 |
| 1969-70 | 32,835,322 | 36,390,699 | 40,011,238 |
| 1970-71 | 33,717,064 | 38,584,734 | 43,541,878 |
| 1971-72 | 34,459,434 | 40,677,986 | 47,010,890 |
| 1972-73 | 34,892,672 | 42,448,819 | 50,143,771 |
| 1973-74 | 35,298,911 | 44,217,107 | 53,298,986 |
| 1974-75 | 35,646,350 | 45,938,891 | 56,420,277 |
| 1975-76 | 35,651,156 | 47,220,229 | 59,025,216 |

## TABLE XVI - ESTIMATED EXPENDITURES FOR INSTRUCTION, POST SECONDARY LEVEL VOCATIONAL EDUCATION, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $ 3,413,261 | $ - | $ - |
| 1967-68 | 4,224,233 | 4,450,136 | 4,565,775 |
| 1968-69 | 5,296,975 | 5,527,598 | 5,808,960 |
| 1969-70 | 6,238,607 | 6,646,097 | 7,143,004 |
| 1970-71 | 7,180,239 | 7,805,503 | 8,568,170 |
| 1971-72 | 8,121,871 | 9,005,946 | 10,084,326 |
| 1972-73 | 9,063,503 | 10,247,426 | 11,691,472 |
| 1973-74 | 10,005,135 | 11,529,945 | 13,389,740 |
| 1974-75 | 10,946,243 | 12,852,713 | 15,178,080 |
| 1975-76 | 11,887,875 | 14,220,059 | 17,063,967 |

## TABLE XVII - ESTIMATED EXPENDITURES FOR INSTRUCTION, ADULT LEVEL VOCATIONAL EDUCATION, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $2,598,991 | $ - | $ - |
| 1967-68 | 2,690,369 | 2,787,470 | 2,886,354 |
| 1968-69 | 2,813,745 | 3,016,854 | 3,223,701 |
| 1969-70 | 2,906,514 | 3,221,230 | 3,541,709 |
| 1970-71 | 2,984,566 | 3,415,440 | 3,854,236 |
| 1971-72 | 3,050,277 | 3,600,727 | 4,161,304 |
| 1972-73 | 3,088,626 | 3,757,479 | 4,438,616 |
| 1973-74 | 3,124,583 | 3,914,004 | 4,717,915 |
| 1974-75 | 3,155,339 | 4,066,416 | 4,994,204 |
| 1975-76 | 3,155,761 | 4,179,837 | 5,224,784 |

TABLE XVIII - ESTIMATED EXPENDITURES FOR INSTRUCTION, SPECIAL NEEDS LEVEL VOCATIONAL EDUCATION, 1966-67, THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $1,359,224 | $ - | $ - |
| 1967-68 | 1,435,230 | 1,486,882 | 1,539,695 |
| 1968-69 | 1,500,811 | 1,609,338 | 1,719,607 |
| 1969-70 | 1,550,432 | 1,718,156 | 1,889,072 |
| 1970-71 | 1,591,927 | 1,821,750 | 2,055,925 |
| 1971-72 | 1,627,039 | 1,920,701 | 2,219,587 |
| 1972-73 | 1,647,642 | 2,004,273 | 2,367,579 |
| 1973-74 | 1,666,794 | 2,087,845 | 2,516,731 |
| 1974-75 | 1,683,044 | 2,169,096 | 2,664,143 |
| 1975-76 | 1,683,334 | 2,229,743 | 2,786,889 |

TABLE XIX - ESTIMATED EXPENDITURES FOR WORK STUDY PROGRAM, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $ 700,501 | $ - | $ - |
| 1967-68 | 761,590 | 790,694 | 817,814 |
| 1968-69 | 815,855 | 871,409 | 929,008 |
| 1969-70 | 859,626 | 946,810 | 1,037,393 |
| 1970-71 | 899,741 | 1,020,585 | 1,146,421 |
| 1971-72 | 936,789 | 1,093,047 | 1,256,095 |
| 1972-73 | 967,036 | 1,159,317 | 1,360,375 |
| 1973-74 | 996,689 | 1,226,435 | 1,467,152 |
| 1974-75 | 1,025,037 | 1,293,415 | 1,575,164 |
| 1975-76 | 1,045,859 | 1,351,686 | 1,673,962 |

TABLE XX - ESTIMATED EXPENDITURES FOR ADMINISTRATION, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $1,593,344 | $ - | $ - |
| 1967-68 | 1,669,430 | 1,731,251 | 1,791,765 |
| 1968-69 | 1,764,759 | 1,888,908 | 2,016,333 |
| 1969-70 | 1,839,323 | 2,032,758 | 2,231,488 |
| 1970-71 | 1,905,246 | 2,171,518 | 2,445,374 |
| 1971-72 | 1,963,928 | 2,305,918 | 2,657,998 |
| 1972-73 | 1,998,150 | 2,424,442 | 2,855,101 |
| 1973-74 | 2,047,766 | 2,543,710 | 3,055,315 |
| 1974-75 | 2,085,916 | 2,661,422 | 3,255,686 |
| 1975-76 | 2,106,275 | 2,757,202 | 3,431,308 |

TABLE XXI - ESTIMATED EXPENDITURES FOR SUPERVISION, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $2,040,287 | $ - | $ - |
| 1967-68 | 2,140,448 | 2,219,711 | 2,297,298 |
| 1968-69 | 2,262,673 | 2,421,850 | 2,585,227 |
| 1969-70 | 2,358,275 | 2,606,286 | 2,861,086 |
| 1970-71 | 2,442,798 | 2,784,196 | 3,135,319 |
| 1971-72 | 2,518,037 | 2,956,516 | 3,407,933 |
| 1972-73 | 2,561,914 | 3,108,480 | 3,660,648 |
| 1973-74 | 2,625,529 | 3,261,400 | 3,917,351 |
| 1974-75 | 2,674,442 | 3,412,324 | 4,174,255 |
| 1975-76 | 2,700,545 | 3,535,127 | 4,399,427 |

TABLE XXII - ESTIMATED EXPENDITURES FOR TEACHER EDUCATION, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $245,824 | $ - | $ - |
| 1967-68 | 256,377 | 265,871 | 275,164 |
| 1968-69 | 271,017 | 290,082 | 309,651 |
| 1969-70 | 282,467 | 312,174 | 342,693 |
| 1970-71 | 292,591 | 333,483 | 375,540 |
| 1971-72 | 301,603 | 354,123 | 408,193 |
| 1972-73 | 306,859 | 372,325 | 438,462 |
| 1973-74 | 314,478 | 390,641 | 469,209 |
| 1974-75 | 320,337 | 408,718 | 499,980 |
| 1975-76 | 323,464 | 423,427 | 526,951 |

TABLE XXIII - ESTIMATED EXPENDITURES FOR RESEARCH, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $447,166 | $ - | $ - |
| 1967-68 | 471,018 | 488,460 | 505,534 |
| 1968-69 | 497,914 | 532,942 | 568,894 |
| 1969-70 | 518,952 | 573,528 | 629,598 |
| 1970-71 | 537,552 | 612,678 | 689,945 |
| 1971-72 | 554,108 | 650,598 | 749,935 |
| 1972-73 | 563,764 | 684,039 | 805,546 |
| 1973-74 | 577,763 | 717,690 | 862,035 |
| 1974-75 | 588,526 | 750,901 | 918,569 |
| 1975-76 | 594,270 | 777,925 | 968,119 |

TABLE XXIV - ESTIMATED EXPENDITURES FOR GUIDANCE AND COUNSELING, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $226,802 | $ - | $ - |
| 1967-68 | 238,490 | 247,322 | 255,966 |
| 1968-69 | 252,108 | 269,844 | 288,048 |
| 1969-70 | 262,760 | 290,394 | 318,784 |
| 1970-71 | 272,178 | 310,217 | 349,339 |
| 1971-72 | 280,561 | 329,417 | 379,714 |
| 1972-73 | 285,450 | 346,349 | 407,872 |
| 1973-74 | 292,538 | 363,387 | 436,474 |
| 1974-75 | 297,988 | 380,203 | 465,098 |
| 1975-76 | 300,896 | 393,886 | 490,187 |

TABLE XXV - ESTIMATED EXPENDITURES FOR INSTRUCTIONAL EQUIPMENT, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $4,647,221 | $ - | $ - |
| 1967-68 | 4,877,121 | 5,057,727 | 5,234,513 |
| 1968-69 | 5,155,617 | 5,518,310 | 5,890,573 |
| 1969-70 | 5,373,450 | 5,938,557 | 6,519,133 |
| 1970-71 | 5,566,040 | 6,343,934 | 7,143,987 |
| 1971-72 | 5,737,477 | 6,736,574 | 7,765,151 |
| 1972-73 | 5,837,453 | 7,082,833 | 8,340,974 |
| 1973-74 | 5,982,402 | 7,431,268 | 8,925,885 |
| 1974-75 | 6,093,855 | 7,775,155 | 9,511,254 |
| 1975-76 | 6,153,331 | 8,054,969 | 10,024,320 |

TABLE XXVI - ESTIMATED EXPENDITURES FOR CONSTRUCTION, VOCATIONAL EDUCATION, ALL LEVELS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $10,905,678 | $ - | $ - |
| 1967-68 | 11,441,558 | 11,865,254 | 12,279,988 |
| 1968-69 | 12,094,900 | 12,945,766 | 13,819,084 |
| 1969-70 | 12,605,930 | 13,931,652 | 15,293,662 |
| 1970-71 | 13,057,740 | 14,882,651 | 16,759,548 |
| 1971-72 | 13,459,924 | 15,803,771 | 18,216,779 |
| 1972-73 | 13,694,464 | 16,616,084 | 19,567,640 |
| 1973-74 | 14,034,511 | 17,433,501 | 20,939,821 |
| 1974-75 | 14,295,974 | 18,240,249 | 22,313,077 |
| 1975-76 | 14,435,505 | 18,896,681 | 23,516,712 |

Three estimates of total expenditures for vocational education in Texas through 1975-76 are presented in Table XXVII. These estimates represent a summation of the estimated expenditures for secondary instruction, post secondary instruction, adult instruction, special needs instruction, administration, supervision, teacher education, research, guidance and counseling, instructional equipment, construction, and the work study program which were presented in Tables XV through XXVI. Note that the most conservative estimate of total expenditures for vocational education in 1975-76 is $80,028,271. This estimate, as well as the other estimates, was developed from an analysis of 1966-67 expenditures and has not been adjusted to reflect possible future increases in unit costs or the probable continued decline in the value of the dollar. It should be carefully noted, however, that the purchasing power of the dollar decreased 11.7 percent during the eight-year period preceding 1967.* If a similar decrease in purchasing power occurs during the eight-year period following 1967, all expenditures for 1975-76 will be about 12 percent higher than estimated in this analysis. Progressive inflation may necessitate even greater upward revision of the estimates.**

TABLE XXVII - ESTIMATED TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION IN TEXAS, 1966-67 THROUGH 1975-76

| School Year | Estimate 1 | Estimate 2 | Estimate 3 |
|---|---|---|---|
| 1966-67 | $57,187,495 | $ - | $ - |
| 1967-68 | 60,599,365 | 62,881,296 | 65,057,473 |
| 1968-69 | 64,513,727 | 68,974,789 | 73,577,772 |
| 1969-70 | 67,631,658 | 74,608,341 | 81,818,860 |
| 1970-71 | 70,447,682 | 80,086,689 | 90,065,682 |
| 1971-72 | 73,011,048 | 85,435,324 | 98,317,905 |
| 1972-73 | 74,907,533 | 90,251,866 | 106,078,056 |
| 1973-74 | 76,967,099 | 95,116,933 | 113,996,614 |
| 1974-75 | 78,813,051 | 99,949,503 | 121,969,787 |
| 1975-76 | 80,038,271 | 104,040,771 | 129,131,842 |

*Source: U. S. Department of Labor, Bureau of Labor Statistics

**Continued inflation also means today's programs will cost more tomorrow. If the total effort in vocational education were to be restricted to the preservation of the status quo, greater expenditures would continue to be necessary.

## Federal, State, and Local Contributions to Total Expenditures for Vocational Education

As previously shown in Table XXVII, expenditures for vocational education in Texas totalled $57.2 million in 1966-67. Federal, State, and local contributions to the total expenditure are shown in Table XXVIII.

TABLE XXVIII - FEDERAL, STATE, AND LOCAL CONTRIBUTIONS TO TOTAL EXPENDITURE FOR VOCATIONAL EDUCATION IN TEXAS, 1966-67

| Source of Funds | Amount Contributed (Rounded) | Percent of Total Expenditure |
|---|---|---|
| Federal Government | $15,800,000 | 27.6% |
| State Government | 28,300,000 | 49.5% |
| Local Districts | 13,100,000 | 22.9% |
| Total | $57,200,000 | 100.0% |

The extent of future Federal participation in the funding of vocational education cannot be predicted with any degree of certainty but two sets of estimates have been made on the basis of the 1966-67 data reported in Table XXVIII. The first set of estimates, shown in Table XXIX, assumes that the Federal government will continue to contribute 27.6% of the total expenditure for vocational education and the State and local shares will continue to be 49.5% and 22.9% respectively.

TABLE XXIX - ESTIMATES OF FEDERAL, STATE, AND LOCAL EXPENDITURES (IN MILLIONS OF DOLLARS) FOR VOCATIONAL EDUCATION IN TEXAS THROUGH 1975-76; (ASSUMES CONTINUATION OF 1966-67 FUNDING PATTERN: FEDERAL, 27.6%; STATE, 49.5%; LOCAL, 22.9%)

Estimate 1

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 60.6 | 16.7 | 30.0 | 13.9 |
| 1968-69 | 64.5 | 17.8 | 31.9 | 14.8 |
| 1969-70 | 67.6 | 18.6 | 33.5 | 15.5 |
| 1970-71 | 70.4 | 19.4 | 34.9 | 16.1 |
| 1971-72 | 73.0 | 20.2 | 36.1 | 16.7 |
| 1972-73 | 74.9 | 20.7 | 37.1 | 17.1 |
| 1973-74 | 77.0 | 21.3 | 38.1 | 17.6 |
| 1974-75 | 78.8 | 21.8 | 39.0 | 18.0 |
| 1975-76 | 80.0 | 22.1 | 39.6 | 18.3 |

Estimate 2

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 62.9 | 17.4 | 31.1 | 14.4 |
| 1968-69 | 69.0 | 19.0 | 34.2 | 15.8 |
| 1969-70 | 74.6 | 20.6 | 36.9 | 17.1 |
| 1970-71 | 80.1 | 22.1 | 39.7 | 18.3 |
| 1971-72 | 85.4 | 23.6 | 42.3 | 19.5 |
| 1972-73 | 90.3 | 24.9 | 44.7 | 20.7 |
| 1973-74 | 95.1 | 26.2 | 47.1 | 21.8 |
| 1974-75 | 99.9 | 27.6 | 49.4 | 22.9 |
| 1975-76 | 104.0 | 28.7 | 51.5 | 23.8 |

Estimate 3

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 65.1 | 18.0 | 32.2 | 14.9 |
| 1968-69 | 73.6 | 20.3 | 36.4 | 16.9 |
| 1969-70 | 81.8 | 22.6 | 40.5 | 18.7 |
| 1970-71 | 90.1 | 24.9 | 44.6 | 20.6 |
| 1971-72 | 98.3 | 27.1 | 48.7 | 22.5 |
| 1972-73 | 106.1 | 29.3 | 52.5 | 24.3 |
| 1973-74 | 114.0 | 31.5 | 56.4 | 26.1 |
| 1974-75 | 122.0 | 33.7 | 60.4 | 27.9 |
| 1975-76 | 129.1 | 35.6 | 63.9 | 29.6 |

The second set of estimates shown in Table XXX, assumes that Federal funding of vocational education in Texas will remain at the $15.8 million level established in 1966-67 and the 1966-67 ratio of State to local expenditures will remain constant through 1975-76.

TABLE XXX - ESTIMATES OF FEDERAL, STATE, AND LOCAL EXPENDITURES (IN MILLIONS OF DOLLARS) FOR VOCATIONAL EDUCATION IN TEXAS THROUGH 1975-76; (ASSUMES FEDERAL FUNDING WILL REMAIN AT $15.8 MILLION LEVEL AND RATIO OF STATE TO LOCAL EXPENDITURES WILL REMAIN CONSTANT)

Estimate 1

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 60.6 | 15.8 | 30.6 | 14.2 |
| 1968-69 | 64.5 | 15.8 | 33.3 | 15.4 |
| 1969-70 | 67.6 | 15.8 | 35.4 | 16.4 |

TABLE XXX - ESTIMATE 1 (CONT'D.)

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1970-71 | 70.4 | 15.8 | 37.3 | 17.3 |
| 1971-72 | 73.0 | 15.8 | 39.1 | 18.1 |
| 1972-73 | 74.9 | 15.8 | 40.4 | 18.7 |
| 1973-74 | 77.0 | 15.8 | 41.9 | 19.3 |
| 1974-75 | 78.8 | 15.8 | 43.1 | 19.9 |
| 1975-76 | 80.0 | 15.8 | 43.9 | 20.3 |

Estimate 2

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 62.9 | 15.8 | 32.2 | 14.9 |
| 1968-69 | 69.0 | 15.8 | 36.4 | 16.8 |
| 1969-70 | 74.6 | 15.8 | 40.2 | 18.6 |
| 1970-71 | 80.1 | 15.8 | 44.0 | 20.3 |
| 1971-72 | 85.4 | 15.8 | 47.6 | 22.0 |
| 1972-73 | 90.3 | 15.8 | 51.0 | 23.5 |
| 1973-74 | 95.1 | 15.8 | 54.2 | 25.1 |
| 1974-75 | 99.9 | 15.8 | 57.5 | 26.6 |
| 1975-76 | 104.0 | 15.8 | 60.3 | 27.9 |

Estimate 3

| School Year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1966-67 | 57.2 | 15.8 | 28.3 | 13.1 |
| 1967-68 | 65.1 | 15.8 | 33.7 | 15.6 |
| 1968-69 | 73.6 | 15.8 | 39.5 | 18.3 |
| 1969-70 | 81.8 | 15.8 | 45.1 | 20.9 |
| 1970-71 | 90.1 | 15.8 | 50.8 | 23.5 |
| 1971-72 | 98.3 | 15.8 | 56.4 | 26.1 |
| 1972-73 | 106.1 | 15.8 | 61.8 | 28.5 |
| 1973-74 | 114.0 | 15.8 | 67.2 | 31.0 |
| 1974-75 | 122.0 | 15.8 | 72.6 | 33.6 |
| 1975-76 | 129.1 | 15.8 | 77.5 | 35.8 |

It should again be carefully noted that all estimates of future expenditures presented in this report are based entirely on actual expenditures for vocational education in 1966-67. The estimates have not been adjusted to provide for probable continued increases in the cost of all items associated with the educational process. The estimates should therefore be treated as flexible approximations rather than accurate predictions of future expenditures.

## SUMMARY

Public education in Texas is charged with the responsibility of providing for the extensive and rapidly changing educational needs of a growing population in an expanding industrial economy. Vocational education, as a vital and integral part of the total public education program, must be based on planning which takes into consideration anticipated economic and demographic changes and must be structured to facilitate adaptation to the changing manpower needs of business and industry.

In recent years a federal, state, and local partnership has emerged which has accelerated the development of vocational education. In Texas, the vocational education program has grown from a few high school courses in 1917 to the present comprehensive program of occupational preparation for secondary school students, post secondary students, adults, and persons with special needs.

Texas has experienced a continuous rapid growth in population for many years and there is evidence that this trend will continue. Estimates indicate the population of the State will exceed 13.5 million by 1975. Vocational education must be expanded to meet the needs of this growing population.

The process of urbanization is expected to continue. Redirection of occupational education to provide realistic programs based on the needs of the predominantly urban society may be necessary.

The Texas labor force will total more than 5 million in 1975. The productivity of many of these workers may depend to a large extent on the quality and quantity of occupational education available in the public schools.

Surveys have shown that employment opportunities are expected to increase in almost every occupation, but enrollment and employment statistics show there is little correlation between the types of programs followed by public school students and the types of employment available to them after graduation. A large percentage

of the high school students of the State are enrolled in college preparatory programs yet most of the employed people of the State are engaged in occupations which do not require a college education.

Total high school enrollments in Texas are expected to reach 835,164 by 1975. Of that number, at least 252,219 will probably be enrolled in vocational education. A much larger enrollment in vocational education is quite probable.

Follow-up studies have shown that a high percentage of students who participate in vocational education programs are subsequently employed in the occupation for which trained or a related occupation. Follow-up has also revealed a very low unemployment rate for this group.

Enrollments at all levels of vocational education in Texas have increased rapidly in recent years. The Vocational Education Act of 1963 has made much of this growth possible.

Estimates of future enrollments at the secondary, post secondary, adult, and special needs levels indicate that at least 752,241 persons will be enrolled in vocational education by 1975. Alternate estimates, based on more rapid rates of increase, indicate total enrollments may reach 984,715 or 1,225,467 by 1975.

Estimates of future expenditures for vocational education, based on actual expenditures in 1966-67, indicate that at least $80,028,271 must be made available from all sources by 1975-76. Other estimates, anticipating greater increases in vocational enrollments, indicate total expenditures for vocational education in 1975-76 may exceed $129,000,000.

Inasmuch as there is no assurance that Federal support of vocational education will continue to increase, the State of Texas must be prepared to assume a greater share of the total expenditures in the years ahead.

## RECOMMENDATIONS OF THE ADVISORY COMMITTEE

The report presented in the preceding pages represents only one of several activities of the Texas Advisory Committee on Vocational Education. Subcommittees of the Advisory Committee have previously prepared and presented separate reports on labor market trends, vocational education resources, trained manpower needs, and improvement of the image of vocational education. The subcommittee reports, together with the present report, have brought into focus a number of major problems that the Committee believes must be solved if vocational education in Texas is to meet the challenge of the future.

These problems, with the Advisory Committee's proposed solutions in the form of specific recommendations for action, are presented on the following pages.

## RECOMMENDATIONS
## FOR ACTION BY STATE LEGISLATURE

1. PROBLEM: State funds have not been available in sufficient quantity to finance the total instructional costs of public vocational education. As a consequence, Federal funds which could be used for further expansion and improvement of programs of instruction, staff development, teacher training, research, and other essential services have been expended for the instructional costs not provided for by the State. Nearly four-fifths of all Federal funds currently allocated to Texas for vocational education must be expended for instructional purposes. Under these circumstances, optimum utilization of available Federal funds is not possible.

THE COMMITTEE RECOMMENDS:

That the State of Texas assume the major responsibility for the costs necessary to conduct all instructional programs in vocational and adult education. These costs include teacher salaries and a share in the cost of maintaining instructional equipment which needs to be updated and modernized periodically. Also included in this cost is the travel necessary for the teacher to maintain his competencies in the field of instruction by visiting industrial establishments that use graduates or students for which he has responsibility, and to take advantage of in-service teacher education opportunities.

That Federal funds available to the State for vocational education be utilized mainly for the development of instructional materials, curriculum improvement, occupational research, program evaluation, in-service and pre-service teacher education, encouragement to local schools to add to or improve area vocational school facilities including instructional equipment for the implementation of new programs, and a portion of the cost of State administration of vocational education programs.

2. PROBLEM: Current provisions for the award of administrator and counselor units to area vocational schools and schools having large vocational education programs are inadequate.

THE COMMITTEE RECOMMENDS:

That the State of Texas enact legislation to provide for the award of adequate administrator and counselor units to area vocational schools and other public schools having large vocational education programs.

3. PROBLEM: In Texas, there is no State agency responsible for the collection and publication of occupational information in sufficient detail to permit realistic planning of occupational education to meet the current and future manpower needs of the State. The employment information currently available is inadequate for occupational education planning purposes.

THE COMMITTEE RECOMMENDS:

That the State of Texas enact legislation requiring and providing the means for one State agency to collect, update, and disseminate the occupational information necessary for sound educational planning in the area of vocational, technical, and adult education.

That the Texas Employment Commission be designated as the State agency responsible for the collection and publication of the necessary occupational information.

That the activities of the Texas Employment Commission and the Texas Education Agency be closely coordinated to ensure maximum utilization of available personnel and resources in the collection, analysis, and publication of occupational information.

That the analyses of the collected occupational information include long-range projections of future needs in sufficient detail to enable the State Legislature, State agencies, local school districts, and the business and industrial community to cooperatively plan and implement programs necessary to produce the required skills in the youth of the State as they progress through the public school system.

4. PROBLEM: Many high school vocational education teachers and facilities are not being fully utilized in the development, implementation, and operation of vocational education programs for adults and out-of-school youth.

THE COMMITTEE RECOMMENDS:

That provisions be made for State financial assistance to permit maximum utilization of high school vocational education teachers and facilities in adult vocational education programs conducted after regular school hours and during the summer months.

5. PROBLEM: There is a recurrent need, particularly in small communities, for instructional equipment to be used in special vocational programs of short duration in which the permanent acquisition of specialized instructional equipment cannot be justified.

THE COMMITTEE RECOMMENDS:

That provision be made for a State-owned reservoir of industrial and instructional equipment so that short intensive instructional programs may be implemented whenever and wherever necessary.

6. PROBLEM: Area vocational schools are not functioning as expected because there has been a very small inflow of students to these schools from other school districts. This problem appears to be due to several factors including (1) students outside area school districts are not being encouraged to enroll in area school programs because such enrollment results in a partial loss of ADA credit by the home school district, (2) the area schools have not encouraged enrollments from other districts because the present financing system does not provide funds to pay for the cost of supplies and equipment used by such students, and (3) enrollment in area vocational school programs by students from other districts is indirectly discouraged by an Interscholastic League ruling which excludes students who are not in full-time attendance at their home schools from interscholastic competition.

THE COMMITTEE RECOMMENDS:

That certain provisions of current school law be revised to permit area vocational school enrollment of students from other districts without loss of ADA by the home school.

That the area school financing system be revised to provide funds to pay for supplies and equipment used by enrollees from other school districts.

That the Interscholastic League be encouraged to modify any existing rules which might prohibit area school enrollees from other districts from participating in interscholastic competition.

## RECOMMENDATIONS FOR ACTION BY STATE BOARD OF EDUCATION OR TEXAS EDUCATION AGENCY WITH STATE BOARD APPROVAL

1. PROBLEM: Public funds for the development of vocational education programs to meet the rapidly changing needs of business and industry are not unlimited. Greater participation on the part of the business and industrial community is needed.

THE COMMITTEE RECOMMENDS:

That the business and industrial community be apprised of the many problems facing vocational education and encouraged to play a greater role in the development and planning of vocational programs.

2. PROBLEM: There is a need for more efficient planning of vocational education at both the State and local levels.

THE COMMITTEE RECOMMENDS:

That the Texas Education Agency, the Commissioner, and the State Board of Education encourage necessary changes in policies and procedures which will stimulate and facilitate more complete and efficient planning for participating schools to meet the needs of local business and industry as well as the individual needs of the pupils.

3. PROBLEM: There are indications that members of the professional vocational education staff, at both the State and local levels, need more encouragement to take advantage of available opportunities for professional development.

THE COMMITTEE RECOMMENDS:

That the Texas Education Agency staff, as well as local participating staffs, be encouraged to participate in programs of professional development, especially in the area of planning and curriculum development.

4. PROBLEM: There is no established formula providing for the equitable allocation of funds to post secondary institutions for vocational education programs.

THE COMMITTEE RECOMMENDS:

That State financing of post secondary vocational education programs be based on a formula in which the allocation of funds to each institution is governed by enrollments, types of programs offered, and other objectively determined factors.

5. PROBLEM: Many vocational education planners and coordinators have not made full and effective use of available on-the-job training opportunities for students in the business and industrial community.

THE COMMITTEE RECOMMENDS:

That local cooperating educational agencies be encouraged to make more extensive use of available on-the-job training opportunities and to work with local business and industry in a development of new on-the-job training programs for high school students.

6. PROBLEM: There are many communities in which State-approved programs of vocational education have never been developed and little is known about the facilities in these communities which might be utilized for public vocational education in the future.

THE COMMITTEE RECOMMENDS:

That the Texas Education Agency develop and maintain an inventory of existing and potential vocational education facilities for use in long-range program planning.

7. PROBLEM: There is evidence that existing vocational teacher preparation programs cannot produce qualified teachers in sufficient numbers to meet the anticipated needs in the years ahead. Existing programs for the preparation of vocational administrators and counselors are also expected to encounter similar difficulties.

THE COMMITTEE RECOMMENDS:

That the Texas Education Agency, in cooperation with the Coordinating Board, Texas College and University System, initiate a study of the preparation of vocational education teachers, administrators, and counselors to assure an adequate supply of competent professional manpower for the future implementation and continuation of high quality vocational education programs throughout the State.

8. PROBLEM: Texas and the Nation are faced with serious social and economic pressures which can be attributed, in part, to the failure of the traditional education system to recognize the interrelationship between academic and occupational preparation and the need for especially designed programs for persons with special academic and occupational needs.

THE COMMITTEE RECOMMENDS:

That continued effort be maintained by the Texas Education Agency and local cooperating schools in implementing and extending programs to meet the individual needs of students who, because of social, academic, cultural, or economic handicaps, are unable to succeed in the academic and vocational programs designed for the normal (average) student.

That provisions be made for technical education at the high school level for the above average student.

9. PROBLEM: Insufficient emphasis has been placed on the program evaluation function at the State agency level.

THE COMMITTEE RECOMMENDS:

That increased emphasis be placed on the evaluation and redesign of present curricula in order to provide the necessary planning tools for program development.

10. PROBLEM: It is well known that public knowledge of the goals, objectives, functions, and activities of occupational education is inaccurate as well as inadequate.

THE COMMITTEE RECOMMENDS:

That provisions be made for broad dissemination of information pertaining to the types, variety, quality, and intent of the various programs of vocational, technical, and adult education to PTA groups, industrial and business groups, civic organizations, professional educators, other influential groups, and news media.

11. PROBLEM: In Texas, there are no adequate provisions for individualized instruction of vocational education students in the public schools.

THE COMMITTEE RECOMMENDS:

That a study be made to determine the feasibility and practicality of individualized instruction for vocational education students, with a view toward possible implementation of new education programs or the combination of these individualized instruction materials in an experimental program for smaller schools which do not have enough students for implementing a large number of specific vocational education programs.

12. PROBLEM: There is a paucity of information concerning the skill requirements of new and emerging occupations.

THE COMMITTEE RECOMMENDS:

That the Texas Education Agency utilize a portion of the Federal funds allocated to the State to encourage research in new and emerging occupations and skills, the development of experimental curricula, instructional materials, and pilot programs designed with a view to soundness of educational planning and should perfect the instructional program prior to implementation in schools throughout the State.

APPENDIX

## MEMBERS OF THE TEXAS ADVISORY COMMITTEE ON VOCATIONAL EDUCATION

Ben R. Howell, Chairman
El Paso Natural Gas Company, and
Member of the State Board of Education

O. J. Baker, Executive Director
Texas Educational Foundation, Inc.
McKinney and Gary Job Corps
Training Centers

Elden B. Busby, Superintendent
Fort Worth Public Schools

Mrs. Albertine Castle
Nutrition Consultant
Texas Gulf Bakers Council

Harry W. Clark, Executive Director
Texas Industrial Commission

Richard Coffman, Administrator
Texas Employment Commission

S. P. Cowan, Superintendent
McAllen Public Schools

Roy Dugger, Vice President
Texas A&M University, and Director,
James Connally Technical Institute

James R. D. Eddy, Dean
Division of Extension
The University of Texas

John E. Finn
Director of Industrial Relations
Bell Helicopter Company, and
Member, Board of Trustees
Tarrant County Junior College Dist.

George C. Guthrie
Secretary-Treasurer
Commercial Contracting Company of
San Antonio, Inc., and
President, Board of Trustees
San Antonio Independent School Dist.

James W. Harvey, Attorney at Law, and
Member of the State Board of Education

J. R. Kuhns, General Manager
Sears, Roebuck & Company (Austin)

Mrs. L. L. Ledger, President
Texas Congress of Parents and Teachers,
and Owner and Operator, Lea's Dress Shop

Penrose B. Metcalfe, Rancher and
Member of the State Board of Education

David Norton, Member of Jr. College Staff
Coordinating Board, Texas College and
University System

E. D. Redding, Assistant to the President
Brown and Root, Incorporated

C. G. Scruggs, Vice President and Editor
Progressive Farmer Magazine, and Member,
Coordinating Board, Texas College and
University System

Grady St. Clair, Vice President
Del Mar College, and President, Texas
Association of Colleges and Universities

## SUBCOMMITTEES

### Subcommittee on Vocational Education Resources

J. F. Kuhns, Chairman
Harry W. Clark
S. P. Cowan
John E. Finn
Ben R. Howell

### Subcommittee on Vocational Programs

James R. D. Eddy, Chairman
Elden B. Busby
Mrs. L. L. Ledger
Penrose B. Metcalfe
David Norton

### Subcommittee on Administration and Finance

O. J. Baker, Chairman
George C. Guthrie
James W. Harvey
C. G. Scruggs
Grady St. Clair

### Subcommittee on Labor Market Survey

E. D. Redding, Chairman
Mrs. Albertine Castle
Richard Coffman
Roy Dugger
M. A. Graham